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POLICY AND THE AEROSPACE INDUSTRIAL BASE BEYOND THE YEAR 2000

by

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POSITION PAPER

ON

POLICY AND THE AEROSPACE INDUSTRIAL BASE BEYOND THE YEAR 2000

1. Some decline in our defense industrial base is inevitable, but policies or procurement strategies can help focus this base to support aerospace power and national security for the next 20 years. To support this assertion, this paper will first outline causes of change in our defense industrial base (DIB). It will then present some criteria for decision making regarding these changes and the needs of aerospace power in the coming decades, focused on technological edge and production capability. Within a domestic and global defense environment, these topics will be pursued regarding possible policies for the DIB. Finally benefits, costs, and risks of such policies will be reviewed. This is a complex topic for such a brief format, but it is vital for ongoing aerospace planning.

2. Change in the DIB stems from several sources. Paramount among these is an altered view of the global threat, with a decline of the bipolar (US-USSR) paradigm and with no perceived threat to immediate national survival. This is coupled with a renewed focus on the domestic economy as the best way now to improve national security.¹ Certainly, the later Bush and current Clinton administrations have expressed such a focus. Recognizing the relative superiority of current US forces against potential adversaries, even DoD and the Air Staff have noted that the DIB can decline from Cold War levels.² This change is already evident in consolidations, commercialization, and losses of some aerospace companies as funding falls. A final factor for DIB change and our approach to it is an increased globalization of defense industry, reflected in increasing foreign sources of competition and supply as well as potential impacts on our defense industrial planning or national security affairs.³ This will be discussed in more detail later.

3. Facing changes in the support structure for national defense, criteria must be judged for dealing with such changes. Blair recommended criteria of sustained capability, value, and minimal pain to the broader economy.⁴ Regarding capability, some sources have made it

axiomatic that US defense must maintain a technological edge.⁵ This axiom may be argued, but its rationale includes offsetting quantity in enemy forces with quality, surpassing the quality of potential enemies to gain decisive victory, and preserving US lives. In an era of defense cuts the quality of remaining forces becomes even more vital, technology may have to offset the spread of advanced weapons worldwide, and our public is no more tolerant of combat losses. Still, technology is but one aspect of aerospace planning. Our national strategy calls not only for current capability and new technology, but for reconstitution--enhanced production, mobilization, and application of forces as needed.⁶ This strategy accepts DIB drawdown but requires its close integration into DoD planning.

4. To maintain competition in the domestic environment, it is wise to keep a mix of prime contractors and subcontractors after expected losses or consolidations.⁷ A related goal is retaining special skills and organizational capabilities.⁸ Final DIB size depends in part on the projected modification, maintenance, and replacement of systems, in part on minimizing domestic pain. Current systems in key districts can be expected to get Congressional support for at least warm production lines; but stretching out production is usually inefficient.⁹ Blair has cited the need for an integrated DoD force structure and industrial strategy emphasizing value for the dollar, otherwise Congress may impose a "pork strategy" for national defense. Further affecting such domestic issues is the global DIB environment. Many aerospace components and materials already come from foreign sources. It may be necessary to reassess foreign support for US defense capabilities and to achieve better integration of US industry within the international system.¹⁰ Realizing DoD and Congressional sensitivities here, policies for US participation might include assurances of security in key areas, control of the location of industries (i.e., US or third-party basing), avoiding heavy concentrations of dependence on foreign sources (as in Moran's 4/50 rule), and supporting the domestic DIB against unfair trade practices.¹¹

5. Within domestic and global environments, procurement policy must focus funding to support total aerospace power. Some funds will undoubtedly be allotted to current systems

and to expanding such force-projection requirements as airlift.¹² But technological edge will also be pursued, as noted. One avenue to do this uses DARPA to support investment in basic research and high-leverage technologies as a basis for future systems.¹³ Possible areas for other DoD funding priority are diverse R&D efforts with high payoffs that might not be pursued commercially or shared internationally.¹⁴ Examples are broad-spectrum signature control (stealth), hardening C⁴I systems against nuclear effects, precision munitions with improved pattern recognition, electronic countermeasures, advanced remotely piloted vehicles, and alternatives to foreign-controlled critical materials.¹⁵ Another approach is some focus on incremental modification of systems. Rather than developing entirely new weapons systems, modular modification and upgrading of existing systems might be cheaper and build on existing production lines.¹⁶ Overall, acquisition emphasis may shift from full-scale development of many systems to more prototyping with acquisition of production plans, special tooling, and test equipment for later production as needed.¹⁷

6. Other funds can be allotted to production and reconstitution. Improving production can mean securing access to critical materials (e.g., stockpiling) or components and long-lead items, as well as investing in technologies for modern manufacturing and the ability to apply civilian technology to defense needs.¹⁸ In considering short-term competitive advantages of companies that do not invest in modernization, the Packard Commission emphasis on non-cost factors in awarding contracts should be advocated, as well as tax incentives for modernization (just as there might be R&D tax incentives or increased data rights).¹⁹ Care also must be taken to look for industries which need quick, short-term fixes to maintain national security during downsizing, such as in the 1989 bailout of Avtex Fibres.²⁰ Stability in production, as well as R&D, also can be sponsored through multiyear funding and reduced procedural impediments, as urged by Packard and others.²¹

7. Pursuing the above-outlined concepts would have inherent benefits, costs, and risks. One intangible benefit is a better framing of our military instrument of power relative to economic and political instruments that are gaining emphasis in the evolving world.

Benefits might also stem from renewed emphasis on targeted technologies, key production capabilities, and improved management. Major benefits of controlled globalization of defense industry could include an increased market size to support our DIB, the spread of risk among more producers, decreased unit costs, US access to foreign technologies, and possible standardization regarding allies in coalition warfare.²² But potential benefits can only be judged relative to costs and risks in this era of downsized forces and DIB.

8. Costs include direct ones associated with any defense resource allocation decision--funding dedicated by Congress to our forces and DIB investment is at the expense of other national programs.²³ This is an investment in security, one that will be decided on the nation's willingness to accept some level of risk regarding its survival and influence. As our forces and DIB decline, it is hoped that the military and political costs of reduced US military capability will be offset by effective coalition warfare and renewed US macroeconomic vigor. Within the US there also will be microeconomic costs as specific industries and individuals are impacted by funding decisions. Finally, globalization will require investment in increased intelligence and analysis capabilities to assess economic threats and maintain security in a linkage of military, economic, and political interests.

9. Regarding risks, long surge and mobilization times impact our ability to apply forces. For example, it might take two years for full reconstitution to meet a Soviet-style attack in Europe.²⁴ In other cases mobilization may take longer than a regional war lasts, again making coalition warfare attractive.²⁵ Emphasis on R&D in resource allocation could hurt O&M funding, exacerbating problems in readiness. Other concerns have been raised about foreign influence on US security decisions and capabilities due to our reliance on their labor, resources, or production.²⁶ Security efforts and the potential for independent US development may not remove all this risk. Globalization of the DIB and drives to offset decreased domestic defense sales could further put at risk US arms control efforts by supporting increased arms trade (especially of concern here since aerospace sales lead US manufacturing exports).²⁷ Ultimately, all benefits, costs, or risks should be weighed.

10. Developing policies or strategies to manage change in the restructuring of the DIB raises an additional risk of generating a defective, *de facto* industrial policy in contrast to a free market.²⁸ However, as seen in this course, the defense industry is not a classic free market. It more closely resembles a monopsony-monopoly with strong impacts from Congress, the Executive Office, and other actors in defense policy formulation and resource allocation. President Reagan often paraphrased a Russian proverb in the context of arms control: "trust but verify." Realizing the diverse influences on resource allocation, we must work to sustain aerospace capability despite reduced domestic industrial capacity--an analogous proverb for those anticipating a new world order is that our goals and approach should be for "peace but not piecemeal" in the decades ahead.

BIBLIOGRAPHY

"Acquisition, Organization and Procedures," *Defense Resource Allocation--NS622, Book 2*, pp. 75-87 (Maxwell AFB AL: Air War College, Air University), Oct 1992.

Blair, David G., "Criteria for Planning the Transition to Lower Defense Spending," *Defense Resource Allocation--NS622, Book 1*, pp. 63-67 (Maxwell AFB AL: Air War College, Air University), Oct 1992.

Edmunds, Don L., "Does Competition Work for Defense?" *National Defense*, Sep 1989, pp. 28-31, 62.

Johnson, Joel L., "The United States: Partnerships with Europe," *Defense Resource Allocation--NS622, Book 2*, pp. 242-251 (Maxwell AFB AL: Air War College, Air University), Oct 1992.

Kapstein, Ethan B., "The Arms Trade," *Defense Resource Allocation--NS622, Book 1*, pp. 85-94 (Maxwell AFB AL: Air War College, Air University), Oct 1992.

Moran, Theodore H., "The Globalization of America's Defense Industry," *Defense Resource Allocation--NS622, Book 2*, pp. 222-241 (Maxwell AFB AL: Air War College, Air University), Oct 1992.

The National Military Strategy (Washington DC: Department of Defense), 1992.

National Security Strategy of the United States (Washington DC: The White House), Jan 1993.

Sammet, George, Jr., and David E. Green, "The Industrial Base," *Defense Resource Allocation--NS622, Book 2*, pp. 198-214 (Maxwell AFB AL: Air War College, Air University), Oct 1992.

"Transition Update Number 8" (23 December 1992), a point paper distributed to some seminars at AWC.

Weidenbaum, Murray, *Small Wars, Big Defense: Paying for the Military After the Cold War* (New York NY: Oxford University Press), 1992.

NOTES

- 1 National Security Strategy of the United States [NSS], (Washington DC: The White House, January 1993), 9.
- 2 AF/XOXI lecture to Air War College, 28 Jan 1993.
- 3 Moran, Theodore H., "The Globalization of America's Defense Industry," *Defense Resource Allocation--NS622, Book 2*, pp. 222-241 (Maxwell AFB AL: Air War College, Air University, Oct 1992), 222.
- 4 Blair, David G., "Criteria for Planning the Transition to Lower Defense Spending," *Defense Resource Allocation--NS622, Book 1*, pp. 63-67 (Maxwell AFB AL: Air War College, Air University, 1992), 63.
- 5 Blair, 66; Edmunds, Don L., "Does Competition Work for Defense?" *National Defense*, Sep 1989, 30,31; NMS, 25; NSS 30,31; *The National Military Strategy [NMS]*, (Washington DC: Department of Defense, 1992), 9,10; NSS, 15; "Transition Update Number 8" (23 December 1992), a point paper distributed to some seminars at AWC, 3.
- 6 Blair, 63; NMS, 8; NSS, 15.
- 7 Augustine, Norman, Lecture to AWC class; Weidenbaum, Murray, *Small Wars, Big Defense: Paying for the Military After the Cold War* (New York NY: Oxford University Press, 1992), 39,54-58.
- 8 Blair, 63,66; NMS, 25.
- 9 Weidenbaum, 200.
- 10 NSS, 15; Weidenbaum, 96-98.
- 11 Johnson, Joel L., "The United States: Partnerships with Europe," *Defense Resource Allocation--NS622, Book 2*, pp. 242-251 (Maxwell AFB AL: Air War College, Air University, Oct 1992), 248; Moran, 231,232 [The 4/50 rule highlights excessive concentration when four or less companies control 50% or more of a market.]; Sammet, George, Jr., and David E. Green, "The Industrial Base," *Defense Resource Allocation--NS622, Book 2*, pp. 198-214 (Maxwell AFB AL: Air War College, Air University, Oct 1992) 190-204.
- 12 Johnson, 250.
- 13 Weidenbaum, 93-95,104.
- 14 Edmunds, 15.
- 15 Moran, 229,230; Sammet and Green, 210.
- 16 "Transition Update #8," 6. [One of Secretary Aspin's stated four key aspects of a new resource strategy is selective upgrade of existing systems.]
- 17 NMS, 25; Sammet and Green, 211,213.
- 18 NMS, 25; NSS, 15, Sammet and Green, 210.
- 19 Edmunds, 31.
- 20 Sammet and Green, 210; Transition Update #8, 6; Weidenbaum, 10.
- 21 "Acquisition, Organization and Procedures," *Defense Resource Allocation--NS622, Book 2*, pp. 75-87 (Maxwell AFB AL: Air War College, Air University), Oct 1992; Sammet and Green, 211; Weidenbaum, 102,103.
- 22 Johnson, 250.
- 23 Weidenbaum, 22.

- 24 Weidenbaum, 37.
- 25 Johnson, 244,245.
- 26 Johnson, 244,245,250; Sammet and Green, 210.
- 27 Kapstein, Ethan B., "The Arms Trade," *Defense Resource Allocation--NS622, Book 1*, pp. 85-94 (Maxwell AFB AL: Air War College, Air University, Oct 1992), 85.
- 28 NSS, 15. ["We must, however, remain committed to the fundamental principle that a robust free market, and not government intervention and regulation, is the key to an effective defense industrial base."]